Bureau of Land Management



Amarillo Field Office Helium Operations

Statistical Report for December - 2003





Distribution:

Fluid Minerals Group Manager, Washington Office NMSO, New Mexico State Director NMSO, Associate State Director NMSO, Petroleum Engineer Field Manager, Amarillo Field Office

Assistant Field Managers (3) Team Leaders

- -Federal Leased Lands
- -Resources Evaluation & Gas Analysis
- -Natural Gas Engineering

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Amarillo, Texas

Issued: February 26, 2004

* Revised *

*Tables include COMPANY PROPRIETARY INFORMATION (shaded) and is for internal use only.

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Approved for distribution: Nelson R. Bullard Date: 02/26/2004

Table 1 - Summary	le 1 - Summary of Helium Operations Decem									
In Kind Sales	NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind	Charges E	Billed (\$)**
Total month	27,606	1,527	0	9,324	4,141	9,099	51,698	50,898	-	\$2,671,822
Total FYTD	27,606	1,527	0	9,324	4,141	9,099	51,698	50,898		\$2,671,822
Total CYTD	121,257	6,553	58	27,423	29,044	27,169	211,505	208,232		\$10,933,238
In Kind Transfers							Month	FYTD	CYTD	Cumulative
Transferred							0	46,562	199,414	1,206,500
Volume outstanding							50,898			
Open Market Sales			Award V		Volume	Outst	anding	Sales	Charges E	3illed (\$)**
Total month					0		0	0		\$0
Total FYTD					675,600		656,700	18,900		\$1,020,600
Total CYTD					2,315,600		r	1,658,900		\$87,120,600
Open Market Transfers							Month	FYTD	CYTD	Cumulative
Transferred							0	410,000	1,640,000	1,640,000
Volume outstanding							18,900			
Natural Gas/Liquids Sales	•		Gas (Mcf)	NGL	s (gal)	Decat	therms	\$/unit	Charges E	
Total month			187,237		49,210		221,167	\$5.3684		\$1,180,954
Total FYTD			493,812		49,210		573,730	\$4.5875		\$2,617,376
Total CYTD			1,736,560		49,210		1,850,604	\$4.7844		\$8,809,455
		Month		Month	FYTD	Month	FYTD	FYTD	CYTD	Cumulative
	Helium	Helium			Purity		w 50%			
Purchased Helium	Mixture	Percent	Helium		lium	He	lium	C	ontained Heliu	ım
Total purchased										32,176,145
Helium transferred			0					456,562	1,839,414	4,831,840
Purchased helium in storage										27,344,305
Private Plant Activity										
Accepted in storage system	102,798	63.9%	65,699	1,410	3,527	(158)	(844)	198,445	693,364	8,002,672
Redelivered from storage system	(209,704)	68.9%	(144,499)	0	0	0	5	(474,776)	(1,936,246)	(12,087,154)
Total apparent crude produced^	199,306	70.1%	139,767					413,755	1,580,374	7,590,996
Total apparent crude refined^	(306,213)	71.4%	(218,568)					(690,087)	(2,832,449)	(12,230,442)
			11.			T .	1.0	0: 1	01	D:11 1
	Gross Gas	Helium	Metered Gas	Helium			rred Gas lium	Stored Helium	Charge (\$)	
Storage Contract Activity	Mo		FYTD	CYTD	Cumulative	Month	Cumulative	EOM	(Ψ,	FYTD
Crude Acquired	102,554	65,541	197,601	688,891	25,372,609	37,660	27,760,765	LOW	WOTH	1110
Crude Disposed	209,704	144,499	474,771	1,936,013	23,912,529	37,660	25,556,678		\$338,255	Storage Fees
Grade-A Rdlvrd	0	0	0	0	1,478,718	0	0		\$61,249	RMF Fees
Net/Balance	(107,150)	(78,958)	(277,170)	(1,247,122)	(18,638)	0	2,204,087	2,185,449	\$399,504	\$917,476
					_		0:		0.	
Bush Dome Reservoir Ope	erations		Moi	ntn	Fisca	l Year	Since S	on Program	Sir	
Conservation gases from	all source	c	Gross	Net	Gross	Net	Gross	Net	Field Di Gross	Net
In underground storage, beg. of			41,053,949	29,576,933	41,328,824		490.620	490,620	0	0
Net Activity	. ponou		(90,870)	(64,638)	(365,745)	(262,850)	,	29,021,676	40,963,079	29,512,296
Total in underground storage			40,963,079	29,512,296	40,963,079	29,512,296	40,963,079		40,963,079	29,512,296
Native Gas				*	·	*	*			*
Total in place, beg. of period			205,710,294		206,235,982		265,724,755		318,727,000	
Net Activity			(308,250)		(833,939)		(60,322,711)		(113,324,956)	
Total in place, end of month			205,402,044		205,402,044		205,402,044		205,402,044	
Native Gas plus Conserva	s		·							
Total gases in place, beg. of pe	eriod		246,764,243		247,564,806		266,215,375		318,727,000	
Net Activity			(399,120)		(1,199,684)		(19,850,253)		(72,361,878)	
Total gases in place, end of mo	246,365,122		246,365,122		246,365,122		246,365,122			
Helium Resources Evalua	tion				Month		FYTD			
Revenue Collected from Feder		lds			Month \$596,610		\$2,187,666			
Helium Sample Collection Rep			Submitted	0	Received	1	Analyzed	75		
Campio Collection Nep	5. C 101 111011tt		Japinittoa		1100011100		/ary200	, 5		

Helium Enrichment Unit Operations		Month			FYTD		Cumulative		
	Helium-Gas	Helium		Helium-Gas	Helium		Helium-Gas	Helium	
	Mixture	Percent	Helium	Mixture	Percent	Helium	Mixture	Percent	Helium
Gas Processed									
Plant feed	365,014	17.4%	63,538	985,360	15.4%	151,652	3,747,073	13.5%	504,516
Helium product	78,459	77.1%	60,464	183,702	77.3%	142,041	609,919	76.2%	464,561
Residue natural gas	189,944	0.0%	10	468,548	0.0%	15	1,998,193	0.0%	25
Vent, flare & plant losses	100,317	3.1%	3,065	342,452	2.8%	9,596	1,468,199	2.7%	39,929
Helium recovery efficiency			95.2%			93.7%			92.1%

^{*} Volumes in Mcf at 14.7 psia & 70°F; all other volumes in 14.65 psia & 60°F

	NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind+	Charges Billed (\$)**
In Kind Heliun	n					•			
Aeriform, Contract	no. INC98-0	101							(billed quarterly)
Month FYTD									
AGA Gas, Inc., Con	ntract no. INC	C98-0102							
Month FYTD									
AirGas, Inc., Contra	act no. INC9	8-0103							
Month FYTD									
Air Liquide S.A., Co	ontract no. II	NC98-0104							
Month FYTD									
Air Products, L.P.,	Contract no.	. INC98-010	5						
Month FYTD									
BOC Gases, Contra	act no. INC9	8-0106					$\rightarrow \swarrow \diagup$	^	
Month FYTD									
Corp Brothers, Inc.	., Contract n	o. INC98-01	07						
Month FYTD					\Diamond				
FIBA Technologies	, Inc., Contr	act no. INC9	8-0108		~				
Month FYTD					a C				
General Air Service	• & Supply C	o., Contrac	t no. INC9	8-0109	\prec \vdash				
Month						>			
Jack B. Kelley Co.,	Contract no	. INC98-011	0						
Month FYTD									
Portland Welding S	l Supply, Cont	ract no. INC	98-0111	$\overline{}$					
Month	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								
FYTD Praxair, Inc., Contr.	act no INCO	9.0112	-(
Month	act no. ince	0-0112	\leftarrow	//					
FYTD									
United States Weld	ling, Inc., Co	ntract	NC98-0113	3					
Month FYTD									
Tri-Gas, Inc., Contr	ao INC	<i>β</i> -0114							
Month FYTD									
Messer Griesheim	Ind., tra	ct no. INC00	-0115						
Month FYTD									
Total month Total FYTD	27,606	1,527	0	•	4,141	9,099	51,698	50,898	\$2,671,822
Total CYTD	27,606	1,527	0	•	4,141	9,099	51,698 211,505	50,898 208,232	\$2,671,822 \$10,933,238
Cumulative	121,257 732,588	6,553 19,929	58 58		29,044 185,577		1,277,171	1,257,323	\$10,933,238 \$62,908,077
In Kind Transf	ers						Month	FYTD	CYTD Cumulative
Transferred	1						0	46,562	199,414 1,206,500
Volume outstanding	J						50,898		

^{*} Volumes in Mcf at 14.7 psia & 70°F

⁺ Volumes in Mcf at 14.65 psia & 60°F

	Award Volume*	Outstanding*	Sales*	Charge	s Billed (\$)**
Conservation Helium					
Air Liquide S.A.					(billed quarterly)
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	50,000		50,000	\$2,625,000	
Air Products, L.P.					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	680,400		680,400	\$35,721,000	
BOC Gases					
Month	0	0	0	\$0	
FYTD	550,000	550,000	0	\$0	
Cumulative	1,384,000		834,000	\$43,785,000	
Keyes Helium Co.					
Month	0	0	0	\$0	
FYTD	75,600	56,700	18,900	\$1,020,600	
Cumulative	151,200		94,500	\$4,989,600	
AGA Gas, Inc.					
Month	0	0	0	\$0	
FYTD	50,000	50,000	0	\$0	
Cumulative	50,000		0	\$0	
		. 1			
Total month	0	0	0		\$0
Total FYTD	675,600	656,700	18,900		\$1,020,600
Total CYTD	2,315,600		1,658,900		\$87,120,600
Cumulative	2,315,600		1,658,900		\$87,120,600
Open Market Transfers	ſ	Month	FYTD	CYTD	Cumulative
Transferred	ĺ	0	410,000	1,640,000	1,640,000
Volume outstanding		18,900			
* \/ - \	<u>L</u>	-,			

^{*} Volumes in Mcf at 14.65 psia & 60°F

	Natural Gas (Mcf)***	NGLs (gal)	Decatherms	\$/unit	Charges	Billed (\$)**					
Natural Gas/Li	quids Sales										
El Paso Natural Ga	s	Provides Firm/Interr	ruptible natural gas t	le natural gas transportation services							
Month	185,274		205,132	(\$0.1339)	(\$27,460)						
FYTD	455,873		503,914	(\$0.1635)	(\$82,380)						
Cumulative	1,647,294		1,826,262	(\$0.1353)	(\$247,141)						
Minerals Management Service Provides natural gas marketing services under a Cooperative Agreement											
Month				\$0.0000	\$0						
FYTD				\$0.0000	\$0						
Cumulative				(\$0.0076)	(\$12,448)						
Cenergy Marketing											
Month	186,220	0	215,981	\$5.484544	\$1,179,381						
FYTD	491,130	0	568,544	\$4.721134	\$2,670,723						
Cumulative	1,727,129	0	1,845,418	\$4.922189	\$9,040,010						
Seminole Transpor	tation & Gathering										
Month	0	49,210	5,186	\$5.826315	\$29,034						
FYTD	0	49,210	5,186	\$5.826315	\$29,034						
Cumulative	0	49,210	5,186	\$5.826315	\$29,034						
Total month	186,220	49,210	221,167	\$5.368398		\$1,180,954					
Total FYTD	491,130	49,210	573,730	\$4.587537		\$2,617,376					
Total CYTD	1,727,129	49,210	1,850,604	\$4.784450		\$8,809,455					
Cumulative	1,727,129	49,210	1,850,604	\$4.784450		\$8,809,455					

^{***} Volumes in Mcf at 14.73 psia & 60°F

All Volumes in Mcf at 14.7 psia & 70°F

		Month*	FYTD*
Revenue Collected From Federal Leaseholds	- -		
Fee Sales & Royalties		\$593,765	\$2,174,398
Natural Gas Royalties (1)		\$2,419	\$9,530
Natural Gas Rentals		\$0	\$0
Other		\$3,738	\$13,433
Revenue Collected from Federal Lease Holds		\$596,610	\$2,187,666
*Totals do not sum	_		
		Month	FYTD
Helium Analysis and Evaulation	_		
Number of Sample Request Letters Sent		0	1
Number of Samples Received		1	7
Number of Samples Analyzed		0	12
Total Number of Samples Analyzed For Resources Division		0	21
Total Number of Samples Analyzed (2)		75	257
U. S. Helium Production			CYTD
Domestic		-	
1997 Helium Sold			3,853,991
1998 Helium Sold			4,029,755
1999 Helium Sold			4,203,019
2000 Helium Sold			4,564,589
2001 Helium Sold			4,756,719
2002 Helium Sold			4,584,904
2003 Helium Sold (projected)			4,700,000
Estimated Helium Resources (as of 01/01/2001)			323,000,000
Leannacea Heliani Nesources (as 01 01/01/2001)			320,000,000
	Month	FYTD	CYTD
U.S. Helium Exports (3)	123,013	246,855	1,361,902

- (1) Includes drip gas sales & other miscellaneous gas sales.
- (2) Includes pipeline, field survey, and other requested analyses.
- (3) Data from Department of Commerce Bureau of the Census statistics as of: November 2003

(690,087)

(2,832,449) (12,230,442

All Volumes in Mcf at 14.65 psia & 60°F

All Volumes in Mcf at 1	4.65 psia & 6	50°F								
		Month		Month	FYTD	Month	FYTD	FYTD	CYTD	Cumulative
	Helium-Gas	Helium			Purity	Below		Cc	ontained He	lium
	Mixture	Percent	Helium	Hel	ium	Heli	ium	00	Thairied Fie	iidiii
Purchased										
Cities Service Helex - Jayhawk										6,403,147
National Helium Corp Liberal										11,561,830
Nothern Helex Co Bushton										4,475,921
Phillips Petroleum - Dumas										5,111,036
Phillips Petroleum - Sherman										4,624,211
Total purchased										32,176,145
		1		ī				1		
Purchased helium produced/trans			0					456,562	1,839,414	
Balance of purchased helium in st	orage									27,344,305
Bureau Plants				,						
Delivery/Handling Credit	0		0					0		13,205,259
Withdrawal	0		0					0		7,540,255
Private Plants										
Helium accepted under terminate	d contracts (pre	-FY96)								16,453,073
Helium redelivered under termina		*								13,007,062
Pioneer - Fain*	Į.									
GPM - Dumas*										(
Crescendo - Sunray*									_ \	\
Air Products - Guymon*										()
GPM - Sherhan*	-								Z>	<i>{</i>
GPM to APG+										
Total GPM - Sherhan										2)
Keyes Helium - Sturgis* ^	-						{\	\/\\	>	<u></u>
Keyes Helium - Sturgis* ^							~ <			
Total Keyes Helium - Sturgis* ^										
Pioneer - Satanta*							> >/	>		
Williams - Baker*						h 1//				
National Helium - Liberal*	-					///	//	l		
National to APL+					</td <td></td> <td></td> <td></td> <td></td> <td></td>					
Total National Helium - Liberal										
Air Products - Liberal*	-				-////	}		l		
	-			\	} } <u>`</u>			l		
Praxair - Jayhawk* ^										
Praxair - Jayhawk* ^										
Total Praxair - Jayhawk* ^ Amoco to Praxair+			Z{ \	- <i>- }-</i> `	<i>></i>					
CIG - Lakin*										
BOC Gases - Otis* ^		/								
KN Processing - Bushton*										
KNP to Praxair+										
Total KN Processing - Bushton		×								
Praxair - Bushton*										
Plant Inactive			05.77					46		
Accepted in storage system	102,798	63.9%	65,699	1,410	3,527	(158)	(844)	198,445	693,364	
Redelivered from storage system		68.9%	(144,499)			0	5	(474,776)	(1,936,246	
Total apparent crude produced^	199,306	70.1%	139,767					413,755	1,580,374	7,590,996

- * Denotes CUSTODY TRANSFER activity in to or out of the crude helium pipeline system
- + Denotes activity between private plants that does not enter the crude helium pipeline system

71.4%

(218,568)

^ Other sources of helium are accessed by helium refiners, but data are not available to BLM

Acquisition & Storage Summary - Contained Helium

(306,213)

Total apparent crude refined^

	Month	FYTD	Cumulative
Total acquisition	65,699	198,445	69,837,149
Total disposition	144,499	474,776	41,564,543
Total stored in conservation system	(78,800)	(276,331)	28,272,606

Helium in pipeline system plus apparent losses	(1,239,690)
Helium in underground storage	29,512,296

İ			Motor	ed Gas			Trancfo	erred Gas	Stored	Chara	es Billed
	Gross Gas H	elium %	Helium	eu Gas	Helium			elium	Helium		\$)**
		Month	Honam	FYTD	CYTD	Cumulative	Month	Cumulative	EOM	Month	FYTD
Total All Contra								2	_ •		2
Crude Acquired	102,554	63.9%	65,541	197,601	688,891	25,372,609	37,660	27,760,765			
Crude Disposed	209,704	68.9%	144,499	474,771	1,936,013	23,912,529	37,660	25,556,678		\$338,255	Storage Fees
Grade-A Rdlvrd	0		0	0	0	1,478,718		<u> </u>		\$61,249	RMF Fees
Net/Balance	(107,150)		(78,958)	(277,170)	(1,247,122)	(18,638)	0	2,204,087	2,185,449	\$399,504	\$917,476
Total Prior Cont	tracts (TERMI	NATED)									
Crude Acquired				0	0	17,406,129	0	18,196,898			
Crude Disposed Grade-A Rdlvrd				0	0	11,830,863	0	19,148,768			
Number of trailers				0	0	1,478,718		ţ	0		
BOC Gases, Co	ntract no. 199	5-3249		0	0	9,834		<u> </u>	0		
Crude Acquired	intract no. 155	3-3 <u>2</u> -3									
Crude Disposed											1
Net/Balance								Î		Ī	
Praxair, Inc., Co	ntract no. 199	95-3251				months - pro	jected depl	etion			
Crude Acquired											
Crude Disposed								1			
Net/Balance											
Air Products, L.	P., Contract n	o. 1995-32	256							7	
Crude Acquired											
Crude Disposed Net/Balance								ļ.			
Oneok Field Ser	wices Contro	et no. 100	5-3250						A		
Crude Acquired	vices, contra	Ct IIO. 199	3-3236					\longrightarrow	- //-/7		
Crude Disposed								\rightarrow			
Net/Balance										li	
ExxonMobil Gas	s Marketing C	o Contra	ct no. 199	5-3280						<u>u</u>	
Crude Acquired		,						>			
Crude Disposed											
Net/Balance											
Pioneer, Contra	ct no. 1995-32	286				months -	jecte	√on		-	
Crude Acquired											
Crude Disposed						$\langle \langle \langle \rangle \rangle \rangle$		Ļ			
Net/Balance	0	4005.0	007			$\overline{}$	V				
Keyes Helium C	o., Contract n	10. 1995-3	287								
Crude Acquired Crude Disposed											
Net/Balance								ń		li li	
Messer Grieshe	im Ind Contr	act no 19	198-3283		$\langle \longrightarrow \rangle$	months - pro	iected denl	etion II			
Crude Acquired	ma., cont	401 110. 13	00 0200		1	months - pro	jeeteu uepi	- I			
Crude Disposed											
Net/Balance								İ			
Linde Gas AG, C	Contract no. 2	001-3282									
Crude Acquired											
Crude Disposed											
Net/Balance											
Mitsui & Co. (U.	S.A.), J., Co	ract no.	2-328	9		months - pro	jected depl	etion			
Crude Acquired			_								
Crude Disposed Net/Balance								ļ.		li	
Air Liquide S.A.	Cont	2003-328	4								
Crude Acquired	, 501111 110.	2000-020	T								
Crude Disposed											
Net/Balance								İ		Ī	
Government He	lium										
Crude Acquired						ļ	0	32,176,145			
·	In Kind Sales						0				
•	Open Market/Re	eserve Sell	down				0				
Net/Balance	,							, , ,	27,344,305		
									,,,		

All Volumes in Mcf at 14.65 psia & 60°F

					Since S	Start of	Since	
	Mo	nth	Fiscal	Year	Conservation	n Program	Field D	iscovery
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Conservation Pipeline								
Beginning of period inventory (1)	43,407	30,093	46,638	32,039	0	0]	
Measured to pipeline (2)	226,140	158,546	707,851	488,070	111,583,804	79,670,680		
Measured from pipeline (3)	209,704	144,499	695,340	474,776	45,900,854	32,669,829		
Measured into Bush Dome (4)	18,626	14,320	18,626	14,320	64,375,634	46,251,857		
Calculated inventory (1+2-3-4)	41,217	29,819	40,522	31,013	1,307,316	748,994		
End of period inventory	44,044	30,756	44,044	30,756	44,044	30,756		
Line gain or (loss)	2,827	937	3,521	(257)	(1,263,273)	(718,238)		
Percent gain (loss) of total measured	0.622%	0.295%	0.248%	-0.026%	-0.569%	-0.453%		
Bush Dome Reservoir Ope	rations							
Conservation gases from all source	es							
In underground storage, beg. of period	41,053,949	29,576,933	41,328,824	29,775,145	490,620	490,620	0	0
Injected during period to date	18,626	14,320	18,626	14,320	64,371,492	46,248,511	64,979,392	46,856,411
Withdrawn during period to date	109,497	78,958	384,371	277,170	23,945,182	17,272,984	24,062,462	17,390,264
Helium from Exell-Soncy	0	0	0	0	46,149	46,149	46,149	46,149
Total in underground storage	40,963,079	29,512,296	40,963,079	29,512,296	40,963,079	29,512,296	40,963,079	29,512,296
Native Gas								
Total in place, beg. of period	205,710,294		206,235,982		265,724,755		318,727,000	
Recoverable in place, beg. of period	196,659,294		197,184,982		256,673,755		309,676,000	
Production during period to date	308,250		833,939		60,322,711		113,324,956	
Total in place, end of month	205,402,044		205,402,044		205,402,044		205,402,044	
Recoverable in place, end of month	196,351,044		196,351,044		196,351,044		196,351,044	
Native Gas plus Conservation Gas	ses							
Total gases in place, beg. of period	246,764,243		247,564,806		266,215,375		318,727,000	
Total gases in place, end of month	246,365,122		246,365,122		246,365,122		246,365,122	
Change during period	(399,120)		(1,199,684)		(19,850,253)		(72,361,878)	
Ave reconsist recovers have of noticed	600.0		000.0		COE 0		0444	
Ave. reservoir pressure, beg. of period	633.3		636.3		685.0]	814.1	
Tuck Trigg Reservoir Oper	ations							
Native Gas	- 400 000		5 400 000		1			<u> </u>
Total in place, beg. of period	5,198,688		5,198,688				5,890,000	
Recoverable in place, beg. of period	4,528,688		4,528,688				5,220,000	
Production during period to date	0		0				691,312	
Total in place, end of month	5,198,688		5,198,688				5,198,688	
Recoverable in place, end of month	4,528,688	l	4,528,688	l			4,528,688	<u> </u>
Ave. reservoir pressure, beg. of period	483.7		483.7				548.0	
Natural Gas Sales - Booste	r Compre	ssor Ope	rations	-		To	tals	0
Field/HEU Compressor Operations	-	•				Month	FYTD	Cumulative
Spot gas fuel price					\$ per/MMBTU	\$5.77	\$4.92	\$4.24
Fuel used					total MMBTU	6,720	17,276	128,108
Field compressor fuel revenue					\$dollars	\$8,076	\$29,593	\$384,033
HEU compressor fuel credit					\$dollars	\$14,118	\$25,919	\$78,015
#1 Compressor run time					hours	618	709	14,195
#2 Compressor run time					hours	51	1096	6,667
#3 Compressor run time					hours	29	267	3,706
Field Compressor Charges		Charges Billed						I (\$)*
BOC Gases, Contract no. 1995-3249								
Praxair, Inc., Contract no. 1995-3251								
Air Products, L.P., Contract no. 1995-	3256							
Keyes Helium Co., Contract no. 1995-	3287							
SubTotal - Cliffside Refiners, LP		(provides boo	ster compression	on services)		(\$70,520)	(\$191,317)	(\$2,900,935)
Cliffside Refiners, LP, GDA010003		(BLM provide	d fuel, labor, su	pplies, etc.)		\$26,724	<u>\$59,929</u>	<u>\$676,422</u>
Net Total - Cliffside Refiners, LP	1					(\$43,796)	(\$131,388)	(\$2,224,514)
						*8	ounded to r	earest dollar

Table 6 - Helium Enrichment Unit Operations

All Volumes in Mcf at 14.65 psia & 60°F (*except where noted)

		Month			FYTD		Cumulative			
	Helium-Gas	Helium		Helium-Gas	Helium		Helium-Gas	Helium		
	Mixture	Percent	Helium	Mixture	Percent	Helium	Mixture	Percent	Helium	
Gas Processed										
Plant feed	365,014	17.4%	63,538	985,360	15.4%	151,652	3,747,073	13.5%	504,516	
Helium product	78,459	77.1%	60,464	183,702	77.3%	142,041	609,919	76.2%	464,561	
Residue natural gas	189,944	0.0%	10	468,548	0.0%	15	1,998,193	0.0%	25	
Vent, flare & plant losses	100,317	3.1%	3,065	342,452	2.8%	9,596	1,468,199	2.7%	39,929	
Helium recovery efficiency			95.2%			93.7%			92.1%	

	Month		FYTD			Cumulative			
	Volume*	KWh	Runtime	Volume*	KWh	Runtime	Volume*	KWh	Runtime
Natural gas liquids (*gallons)	29,936			66,093			66,093		
Utility Usage									
K100 compressor		331,053	500		1,051,908	1,460		6,008,468	5,448
K600 compressor		983,357	446		2,815,501	1,264		10,493,979	4,772
K610 compressor			441			1,115			4,051
Dew point control system		13,669	278		34,034	701		34,034	701
Other electrical usage		200,665	744		611,640	2,208		2,907,325	7,048
Fuel gas (*Mcf)	3,484			7,097			27,804		
Water (*gallons)	2,861			9,241			23,531		

HEU Runtime & Charges	Month		FYTD		Cumulative	
Enrichment Unit Runtime	Runtime	Percent	Runtime	Percent	Runtime	Percent
Processing feed gas	500	67.2%	1,460	66.1%	5,448	77.3%
Producing natural gas liquids	278	37.4%	701	31.8%	701	9.9%
Producing helium product	441	59.3%	1,115	50.5%	4,051	57.5%
Producing residue gas	446	59.9%	1,264	57.2%	4,772	67.7%

Enrichment Unit Charges		Charges Billed (\$)*						
Reservior Management Fees (RMF)	\$	61,249	\$206,565	\$778,734				
Total operating costs	(\$1,1	44,092)	(\$2,892,361)	(\$7,884,458)				
Labor	\$32,270	\$120,624	\$570,612	!				
Compressor fuel	\$2,027	\$30,076	\$56,665	i				
HEU fuel	\$351	\$25,497	\$82,905	i				
Electric power	\$127,004	\$378,191	\$692,872	!				
Flare, vent & plant losses	\$506,062	\$908,843	\$2,250,008	1				
Other	\$17,250	\$51,750	\$155,250)				
Sub Total - Items provided by BLM	<u>\$6</u>	<u>84,965</u>	<u>\$1,514,980</u>	\$3,808,313				
Total - Cliffside Refiners, LP, GDA030001	(\$4	59,127) ((\$1,377,381)	(\$4,076,145)				

*Rounded to nearest dollar